Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-28 (canceled)

29. (Previously Presented) A fluid treatment module comprising:

at least two hollow membranes, each including two support layers arranged one above the other creating between them a space; and

a plurality of capillary tubes arranged between the two support layers and each having an opening at the level of each of the support layers in such a way as to form capillary channels for the flow of a first fluid, wherein at least one membrane has from 10^5 to $5x10^8$ capillary tubes per cm^2 in at least one support layer, the space between the capillary tubes and the two support layers forming an internal cavity for circulation of a second fluid around the capillary tubes, the two support layers and the capillary tubes being constituted by an organic polymer, wherein said hollow membranes are arranged within a sealed enclosure in such a way as to provide, between at least one side of said hollow membranes and an adjacent side wall of the enclosure, spaces for the circulation of the first fluid uniquely in communication with the inside of the capillary tubes of the hollow membranes;

means for circulating said first fluid in the capillary tubes of the hollow membranes by introducing said first fluid into at least one of said circulation spaces and by collecting said first fluid in another of said circulation spaces; and

means for circulating said second fluid in the internal cavity of the hollow membranes.

30. (Previously Presented) The fluid treatment module according to Claim 29, in which the spaces for circulation of said first fluid are filled with a lining that allows turbulence to be generated in the first fluid.

31. (Previously Presented) The fluid treatment module according to Claim 30, in which the lining is formed from a porous material, pores of which have a dimension greater than the diameter of the capillary tubes.

32. (Previously Presented) The fluid treatment module according to Claim 31, in which the ratio of the dimension of the pores of the porous material to the diameter of the capillary tubes is from 5 to 200.

33. (Previously Presented) The fluid treatment module according to Claim 31, in which the pores of the porous material are lined with a component chosen from catalysts, enzymes and sorbents that are insoluble in said first fluid, the ratio of the pore dimension of the porous material to the internal diameter of the capillary tubes is from 5 to 50.

34. (Previously Presented) The fluid treatment module according to Claim 29, further comprising:

a stack of n hollow membranes and $(n + 1)$ panels of porous material alternating with the hollow membranes in such a way that each hollow membrane is positioned between two panels of porous material, the panels forming spaces for the circulation of the first fluid, the first fluid introduced onto a lower or an upper face of the stack and recovered at an opposite face of the stack;

a first chamber for the introduction of the second fluid, arranged on a lateral face of the stack and in communication with the internal cavities of the hollow membranes; and

a second chamber for receiving the second fluid arranged on an opposite lateral face of the stack and in communication with the internal cavities of said hollow membranes.

35. (Previously Presented) The fluid treatment module according to Claim 34, in which the stack is arranged between two rigid grids having openings which are at least equal to or greater than a pore dimension of the panels of porous material.

36. (Previously Presented) The fluid treatment module according to Claim 34, in which at least one of the diameter, the length and the quantity of capillary tubes of the hollow membranes in the stack is different than another in at least one hollow membrane in the stack.

37. (Previously Presented) The fluid treatment module according to Claim 34, in which the diameter of the capillary tubes reduces from one hollow membrane to the other

in the direction of flow of the first fluid, and the density of capillary tubes increases from one hollow membrane to the other in the direction of flow of the first fluid.

38. (Previously Presented) The fluid treatment module according to Claim 29, further comprising:

a stack of n hollow membranes and $(n + 1)$ panels of porous material alternating with the hollow membranes in such a way that each hollow membrane is positioned in a stack between two panels of porous material, these panels forming spaces for the circulation of the first fluid, the stack comprising a first series of hollow membranes with an odd number and a second series of hollow membranes with an even number arranged between the first series of membranes, the first fluid introduced onto the lower or upper face of the stack and recovered on the opposite face of this stack;

a first chamber for the introduction of the second fluid, arranged on a first lateral face of the stack and in communication with the internal cavities of the hollow membranes of the first series;

a second chamber for receiving the second fluid arranged on a second lateral face opposite to said first lateral face and in communication with the internal cavities of said hollow membranes of the first series;

a third chamber for the introduction of a third fluid, arranged on a third lateral face contiguous with said first lateral face and in communication with the internal cavities of the hollow membranes of the second series; and

a fourth chamber for receiving the third fluid arranged on a fourth lateral face opposite to said second lateral face and in communication with the internal cavities of the hollow membranes of the second series.

39. (Previously Presented) The fluid treatment module according to Claim 38, in which the stack is arranged between two rigid grids having openings which are at least equal to or greater than a pore dimension of the panels of porous material.

40. (Previously Presented) The fluid treatment module according to Claim 38, in which at least one of the diameter, the length and the quantity of capillary tubes of the hollow membranes in the stack is different than another in at least one hollow membrane in the stack.

41. (Previously Presented) The fluid treatment module according to Claim 38, in which the diameter of the capillary tubes reduces from one hollow membrane to the other in the direction of flow of the first fluid, and the density of capillary tubes increases from one hollow membrane to the other in the direction of flow of the first fluid.

42. (Previously Presented) The fluid treatment module according to Claim 29, further comprising:

a stack of n hollow membranes and $(n + 1)$ panels of porous material alternating with the hollow membranes in such a way that each hollow membrane is positioned between two panels of porous material, the panels forming spaces for the circulation of

the first fluid, the stack comprising a first series of hollow membranes with an odd number and a second series of hollow membranes with an even number arranged between the first series of hollow membranes, the first fluid introduced onto a lower or an upper face of the stack and recovered on an opposite face of the stack;

a first chamber for the introduction of the second fluid, arranged on a first lateral face of the stack and in communication with the internal cavities of the hollow membranes of the first series;

a second chamber for receiving the second fluid arranged on a second lateral face of the stack contiguous with said first lateral face and in communication with the internal cavities of said hollow membranes of the first series;

a third chamber for the introduction of a third fluid, arranged on a third lateral face of the stack in communication with the internal cavities of the hollow membranes of the second series; and

a fourth chamber for receiving the third fluid arranged on a fourth lateral face of the stack, said chamber being in communication with the internal cavities of the hollow membranes of the second series.

43. (Previously Presented) The fluid treatment module according to Claim 42, in which the stack is arranged between two rigid grids having openings which are at least equal to or greater than a pore dimension of the panels of porous material.

44. (Previously Presented) The fluid treatment module according to Claim 42, in which at least one of the diameter, the length and the quantity of capillary tubes of the

hollow membranes in the stack is different than another in at least one hollow membrane in the stack.

45. (Previously Presented) The fluid treatment module according to Claim 42, in which the diameter of the capillary tubes reduces from one hollow membrane to the other in the direction of flow of the first fluid, and the density of capillary tubes increases from one hollow membrane to the other in the direction of flow of the first fluid.

46. (Previously Presented) A fluid treatment module comprising:

at least two hollow membranes, each including two support layers arranged one above the other creating between them a space; and

a plurality of capillary tubes arranged between the two support layers and each having an opening at the level of each of the support layers in such a way as to form capillary channels for the flow of a first fluid, the space between the capillary tubes and the two support layers forming an internal cavity for circulation of a second fluid around the capillary tubes, the two support layers and the capillary tubes being constituted by an organic polymer, wherein said hollow membranes are arranged within a sealed enclosure in such a way as to provide, between at least one side of said hollow membranes and an adjacent side wall of the enclosure, spaces for the circulation of the first fluid uniquely in communication with the inside of the capillary tubes of the hollow membranes;

means for circulating said first fluid in the capillary tubes of the hollow membranes by introducing said first fluid into at least one of said circulation spaces and

by collecting said first fluid in another of said circulation spaces, said circulation spaces include a lining configured to allow turbulence to be generated in the first fluid; and

means for circulating said second fluid in the internal cavity of the hollow membranes.

47. (Previously Presented) The fluid treatment module according to Claim 46, further comprising:

a stack of n hollow membranes and $(n + 1)$ panels of porous material alternating with the hollow membranes in such a way that each hollow membrane is positioned between two panels of porous material, the panels forming spaces for the circulation of the first fluid, the first fluid introduced onto a lower or an upper face of the stack and recovered at an opposite face of the stack;

a first chamber for the introduction of the second fluid, arranged on a lateral face of the stack and in communication with the internal cavities of the hollow membranes; and

a second chamber for receiving the second fluid arranged on an opposite lateral face of the stack and in communication with the internal cavities of said hollow membranes.

48. (Previously Presented) The fluid treatment module according to Claim 46, further comprising:

a stack of n hollow membranes and $(n + 1)$ panels of porous material alternating with the hollow membranes in such a way that each hollow membrane is positioned

between two panels of porous material, the panels forming spaces for the circulation of the first fluid, the stack comprising a first series of hollow membranes with an odd number and a second series of hollow membranes with an even number arranged between the first series of hollow membranes, the first fluid introduced onto a lower or an upper face of the stack and recovered on an opposite face of the stack;

a first chamber for the introduction of the second fluid, arranged on a first lateral face of the stack and in communication with the internal cavities of the hollow membranes of the first series;

a second chamber for receiving the second fluid arranged on a second lateral face of the stack contiguous with said first lateral face and in communication with the internal cavities of said hollow membranes of the first series;

a third chamber for the introduction of a third fluid, arranged on a third lateral face of the stack in communication with the internal cavities of the hollow membranes of the second series; and

a fourth chamber for receiving the third fluid arranged on a fourth lateral face of the stack, said chamber being in communication with the internal cavities of the hollow membranes of the second series.